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Influenza Update

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It's a miserable one to two weeks with cough, sneezing, sore throat, headache, fever, muscle aches, and severe fatigue. The illness is influenza, or flu, which affects 10% or more of the population each winter season.

The primary type of influenza, influenza A, is a viral illness of humans, birds, and animals that is highly contagious through respiratory secretions. The severity of symptoms distinguishes influenza from other conditions such as the common cold, which is milder and shorter duration, and pertussis, which has primarily a severe cough. Up to one in a thousand influenza cases is fatal.

The body's protection against influenza comes from immunity due to previous infection with a specific strain or to vaccination. In some situations antiviral drugs may be taken as prophylaxis to prevent illness in a vulnerable person or as treatment to prevent severe complications once influenza develops, though these medications are not widely used in healthy persons.

Influenza Vaccine Supply

Since flu strains change each year, the vaccines must also change and a previous infection may not provide sufficient immunity against the new strain. A new vaccine is produced for each influenza season and there are sometimes delays or shortages in production. Each year's vaccine protects against current strains, including two types of influenza A and one type of influenza B.

Although all reports indicated a sufficient supply of flu vaccine this year, there have been uncertainties regarding the exact number of available doses and timing of vaccine distribution. As a result, the Centers for Disease Control and Prevention (CDC) recommended that only certain priority groups receive inactivated (injected) vaccine before October 24, 2005. These groups included: persons 65 and older, persons with medical conditions increasing the risk of complications from influenza, pregnant women, those working with direct patient contact, and contacts of children under age six months. The nasal-spray flu vaccine is always an option for healthy persons aged 5-49 years who are not pregnant.

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After October 24th, flu vaccine should be offered to the usual risk groups as well as those wanting to protect themselves against influenza. In addition, a new recommendation is to vaccination persons with any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration.

Information about influenza vaccine is available at:

www.doh.wa.gov/cfh/Immunize/flu_updates.htm

Influenza Activity in 2005-2006

The influenza surveillance season begins October 2005 and extends until influenza activity stops in spring 2006. Surveillance for influenza is based on school absenteeism, pneumonia and influenza deaths reported from selected cities, sentinel physician reports, and laboratory submission of influenza isolates.

Influenza surveillance reports from the Centers for Disease Control and Prevention began October 8, 2005. Low levels of influenza activity were reported nationally in the first two weeks. Weekly updates of national influenza surveillance are available through the Centers for Disease Control and Prevention at:

www.cdc.gov/flu/weekly/fluactivity.htm

Regular updates of influenza surveillance in Washington state are available from the Department of Health (DOH) at:

www.doh.wa.gov/EHSPHL/Epidemiology/CD/HTML/FluUpdate.htm

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Pandemic Influenza

Major changes also occur in the specific flu strains in circulation, particularly if illness in humans is caused by a virus normally infecting other species such as birds. When entire human populations are susceptible to a new influenza strain and person to person transmission occurs there may be a pandemic affecting large portions of the population. A major influenza pandemic occurred in 1918 with smaller pandemics in 1957 and 1968.

A particular concern is that influenza subtypes currently infecting wild and domestic birds in Asia might develop into a human pandemic. There would be few people with immunity to these new strains, which are different than flu strains humans have encountered recently. Human cases of avian influenza infection have been identified in the past two years but there has not been ready person-to-person transmission which could lead to a pandemic.

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From mid-December 2003 through February 2004, outbreaks of avian influenza in poultry were detected in Vietnam, Thailand, Cambodia, China, Indonesia, Japan, Laos, and the Republic of Korea. More than 100 million birds in affected countries died from disease or were killed to control the outbreak. Beginning in late June 2004, new outbreaks among poultry were reported by several countries in Asia. From December 2003 through August 2005, a total of 112 human infections with 57 deaths were reported in Thailand, Vietnam and Cambodia, including family clusters. Currently there are no reports of continued transmission from person to person.

More recently Tibet, Russia, Romania, Turkey, and Greece also identified influenza cases among domestic fowl that were confirmed of the same type of avian influenza. World Health Organization (WHO) and Centers for Disease Control and Prevention continue surveillance for avian influenza. There is also ongoing planning for public health response. However, human cases remain rare in affected regions and almost all cases are associated with direct bird contact.

Canine Influenza

A 2004 investigation in Florida identified influenza A H3N8 infections among several racing greyhounds. This type of influenza had previously infected only horses. Canine influenza recently spread into the pet dog population and as of October 18, Washington State is among more than 35 states with laboratory reported canine influenza cases.

Many dogs that are exposed to this virus will not develop any clinical signs of illness. Symptoms of influenza in dogs usually include fever, cough, and nasal discharge. The illness may resemble "kennel cough" which is caused by infection with *Bordetella bronchiseptica*. A small percentage of dogs will develop pneumonia requiring supportive medical care. Death rarely occurs. Transmission is efficient especially in places where dogs are grouped (kennels, shelters, parks, racetracks, etc.)

Canine influenza is not reportable to local or state health agencies in Washington. This type of influenza has never infected humans, and among the handlers of infected dogs, no human illness has been reported. As a general precaution, wash your hands well after handling or petting any sick animal.

To protect dogs from this rapidly spreading emerging viral disease, keep them away from other ill dogs. When boarding your pets, make sure that there is a veterinary plan in case they become ill. The current "kennel cough" vaccine does not protect against canine influenza. A vaccine is in development but is not yet available.